

What is Claimed is:

1. An apparatus comprising:

a precast element; and

a securement structure,

5 wherein the precast element includes:

(i) a top surface including a flat portion,

(ii) a bottom surface including a flat portion, and

(iii) first and second side surfaces extending from the top surface

to the bottom surface,

10 wherein the first side surface of the precast element is non-parallel relative

to the second side surface of the precast element,

wherein the precast element includes a fireproof material, and

wherein the securement structure is attached to the precast element and

projects out of the top surface of the precast element.

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2. The apparatus of claim 1, wherein the flat portion of the top surface of the precast element is substantially parallel with the flat portion of the bottom surface of the precast element.

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3. The apparatus of claim 1, wherein the securement structure is configured to secure the precast element to at least one of (i) a beam and (ii) a column.

4. The apparatus of claim 3, wherein at least one of (i) the beam and (ii) the column includes an I-shaped cross-section.
 5. The apparatus of claim 1, wherein the securement structure includes a clamp.
 6. The apparatus of claim 1, wherein the securement structure is permanently attached to the precast element.
- 10 7. The apparatus of claim 1, wherein the fireproof material includes concrete.
8. The apparatus of claim 1, wherein the precast element is configured to serve as a screed guide.
- 15 9. The apparatus of claim 8, wherein the precast element is configured to serve as a stay-in-place screed guide.
10. The apparatus of claim 1, wherein the precast element includes a chamfer.
- 20 11. A system comprising:
a steel element;
a concrete element; and

one or more clamps,

wherein the one or more clamps releasably secures the concrete element to
the steel element, and

wherein the concrete element serves as a leave-in-place screed so as to

- 5 apply concrete to the steel element to protect the steel element from fire.

12. The system of claim 11, wherein the steel element includes a beam.

13. The system of claim 11, wherein the steel element includes a column.

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14. The system of claim 11, wherein the one or more clamps is integrated to
the concrete element.

15. The system of claim 11,

15 wherein the steel element includes a flange, and

wherein the one or more clamps releasably secures the concrete element to
the flange of the steel element.

16. The system of claim 11, wherein the concrete is poured, sprayed and/or
20 troweled to the steel element to protect the steel element from fire.

17. The system of claim 11, wherein the concrete element includes a chamfer.

18. The system of claim 11,

wherein the concrete element includes:

a top surface including a flat portion, and

5 a bottom surface including a flat portion, and

wherein the one or more clamps projects out of the top surface of the
concrete element.

19. The system of claim 18,

10 wherein the concrete element includes first and second side surfaces
extending from the top surface to the bottom surface, and

wherein the first side surface is non-parallel with the second side surface.

20. The system of claim 18, wherein the top surface is substantially parallel
15 with the bottom surface.

21. The system of claim 11, wherein the steel element includes an I-shaped
cross-section.

20 22. The system of claim 11, wherein the concrete element includes a precast
concrete element.

23. A system comprising:

at least one of (i) a beam and (ii) a column; and

a precast element,

wherein the precast element includes a securement structure,

5 wherein the securement structure secures the precast element to at least

one of (i) the beam and (ii) the column, and

wherein the precast element forms an edge so as to apply a fireproof material to at least one of (i) the beam and (ii) the column.

10 24. The system of claim 23, wherein at least one of (i) the beam and (ii) the column includes steel.

25. The system of claim 23, wherein the precast element includes concrete.

15 26. The system of claim 23, wherein the securement structure includes a clamp.

27. The system of claim 23, wherein the fireproof material is poured, sprayed and/or troweled to at least one of (i) the beam and (ii) the column.

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28. The system of claim 23, wherein the fireproof material includes concrete.

29. The system of claim 23, wherein the securement structure releasably secures the precast element to at least one of (i) the beam and (ii) the column.

30. The system of claim 23, wherein the securement structure permanently
5 secures the precast element to at least one of (i) the beam and (ii) the column.

31. The system of claim 23, wherein the precast element itself provides fireproofing protection to at least one of (i) the beam and (ii) the column.

10 32. A system comprising:
at least one of (i) a beam and (ii) a column;
a plurality of precast elements; and
a plurality of securement structures,
wherein the plurality of securement structures secure the plurality of
15 precast elements to at least one of (i) the beam and (ii) the column, and
wherein the plurality of precast elements serve as guides so as to apply a fireproof material to at least one of (i) the beam and (ii) the column.

33. The system of claim 32, wherein the fireproof material is applied between
20 the plurality of precast elements.

34. The system of claim 32,

wherein at least one of (i) the beam and (ii) the column includes a plurality of flange edges, and

wherein the plurality of securement structures secure the plurality of precast elements to the plurality of flange edges of at least one of (i) the beam and (ii) the
5 column.